PATENT SPECIFICATION (11) 1 496 899

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(21) Application No. 53941/74 (22) Filed 13 Dec. 1974
(61) Patent of Addition to No. 1 334 110 dated 16 Feb. 1972
(23) Complete Specification filed 12 Dec. 1975
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E1G 96B 96L

(72) Inventor DEREK FERNS

(19)

(54) IMPROVEMENTS IN OR RELATING TO INSPECTION COVERS

(71) We, SELFLOCK LIMITED, A British Company of 8 Blaenwern, Avondale Industrial Estate, Cwmbran, Monmouthshire, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention relates to inspection covers. Such covers include access covers for conduits or the like, manhole covers, access floor panels and covers for providing inspection and access to telephone chambers and similar multiple access pit areas. These covers are usually located in a framework into which they must fit snugly and from which they must be easily removable.

According to the invention there is provided a framework for a manhole or other cavity and a frame for a cover in which one side of the framework and the corresponding side of the frame of the cover are formed of angle sections of identical configuration and with one limb formed to provide an inwardly facing protrusion which extends lengthwise of the section and is bounded on each side by a trough.

The advantages of this design are that the sides of the cover and frame-work may be formed from identical rolled metal stock and a pair of sealing strips may be held in place between the frame and cover.

One side of an inspection cover and framework embodying the invention is diagrammatically illustrated, by way of example, in the accompanying drawing.

Referring to the drawing, the inspection cover 1 is substantially rectangular in configuration, and is made from an angle section 2 of mild steel having a lower limb 3, with a protrusion 5 extending along the length thereof and bounded on each side by a trough 6. The lower limb 3 is integral with an upper limb 4 which is planar, the angle between the limbs being substantially a right angle.

The upper limb 4 has an inwardly facing protrusion 5 extending substantially along its length and bounded on each side by a trough 6.

The other two opposed sides of the cover are each defined by a flat length or bar of mild steel the depth of the bar being substantially equal to the depth of the angle section.

A framework 10 for receiving the cover 1 is also rectangular in configuration and comprises two opposed sides or boundary walls 12 each made from an angle section of mild steel having a lower limb 13, with a protrusion 15 extending along the length thereof and bounded on each side by a trough 16. The lower limb 13 is integral with an upper limb 14 which is planar, the angle between the limbs being substantially a right angle. The other two sides are, like the cover, defined by flat bars. The framework is set into the concrete walls surrounding the manhole or extending along two sides of an elongate chamber.

The cover includes a reinforcement in the form of a grid 18 of metal bars extending thereacross, and is also filled with concrete, although tiles or other similar building material may be used instead.

It will be appreciated that both angle sections 2 and 12 are identical in configuration, and both are cut from the same length of rolled mild steel stock which is rolled to the required configuration of two limbs subtending approximately a right angle therebetween, one limb having a protrusion along the length thereof.

A pair of sealing strips 17 of flexible

SPECIFICATION NO 1496899

By a direction given under Section 17 (1) of the Patents Act 1949 this application proceeded in the name of SELF-LEVEL COVERS AKTIENGESELLSCHAFT, a Swiss Body Corporate, of 3 Wallstrasse, Basel, Switzerland.

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THE PATENT OFFICE

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(71) We, SELFLOCK LIMITED, A British Company of 8 Blaenwern, Avondale Industrial Estate, Cwmbran, Monmouthshire, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention relates to inspection covers. Such covers include access covers for conduits or the like, manhole covers, access floor panels and covers for providing inspection and access to telephone chambers and similar multiple access pit areas. These covers are usually located in a framework into which they must fit snugly and from which they must be easily removable.

According to the invention there is provided a framework for a manhole or other cavity and a frame for a cover in which one side of the framework and the corresponding side of the frame of the cover are formed of angle sections of identical configuration and with one limb formed to provide an inwardly facing protrusion which extends lengthwise of the section and is bounded on each side by a trough.

The advantages of this design are that the sides of the cover and frame-work may be formed from identical rolled metal stock and a pair of sealing strips may be held in place between the frame and cover.

One side of an inspection cover and framework embodying the invention is diagrammatically illustrated, by way of example, in the accompanying drawing.

Referring to the drawing, the inspection cover 1 is substantially rectangular in configuration and comprises two opposed sides or boundary walls 2, of which one is shown in the drawing, each made from an angle section of mild steel having a lower planar limb 3 integral with an upper limb 4, the angle between the two limbs being a night angle.

The upper limb 4 has an inwardly facing protrusion 5 extending substantially along its length and bounded on each side by a trough 6.

The other two opposed sides of the cover are each defined by a flat length or bar of mild steel the depth of the bar being substantially equal to the depth of the angle section.

A framework 10 for receiving the cover 1 is also rectangular in configuration and comprises two opposed sides or boundary walls 12 each made from an angle section of mild steel having a lower limb 13, with a protrusion 15 extending along the length thereof and bounded on each side by a trough 16. The lower limb 13 is integral with an upper limb 14 which is planar, the angle between the limbs being substantially a right angle. The other two sides are, like the cover, defined by flat bars. The framework is set into the concrete walls surrounding the manhole or extending along two sides of an elongate chamber.

The cover includes a reinforcement in the form of a grid 18 of metal bars extending thereacross, and is also filled with concrete, although tiles or other similar building material may be used instead.

It will be appreciated that both angle sections 2 and 12 are identical in configuration, and both are cut from the same length of rolled mild steel stock which is rolled to the required configuration of two limbs subtending approximately a right angle therebetween, one limb having a protrusion along the length thereof.

A pair of sealing strips 17 of flexible waterproof material such as Neoprene may be bonded within the troughs 16 bounding the protrusion and provide effective sealing effect.

The angle sections may be formed from

materials such as cast iron or moulded synthetic or plastics material, rather than mild steel as described.

The cover and framework described gives a simple construction as the components are standard, and handling and storage is facilitated since only one angle section member is required for both the framework and cover; stated in another way, the member from which the frame and cover sides 12 and 2 are formed is "reversible" in that it can be used equally for the frame or the cover, being identical in configuration.

WHAT WE CLAIM IS:

1. A framework for a manhole or other cavity and a frame for a cover, in which one side of the framework and the corresponding side of the frame of the cover are formed of angle sections of identical configuration and with one limb formed to provide an inwardly facing protrusion which extends length wise of the section and is bounded on each side by a trough.

2. The combination claimed in claim 1, wherein both angle sections are from the same stock.

3. The combination claimed in claim 1, wherein each trough in the angle section forming part of the framework contains a sealing strip for contact with the angle section forming part of the cover.

4. The combination as claimed in claim 1 substantially as hereinbefore described with reference to and as illustrated in the accompanying drawing.

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1496899 COMPLETE SPECIFICATION

1 SHEET *This drawing is a reproduction of the Original on a reduced scale*